FIG. 1a

FIG. 1b

	RATIOS	50	52	54	56	57	58	59
REVERSE	-2.25			X				X
NEUTRAL	0.00							X
1	3.71					X		X
2'	2.22		X					X
2	2.08			X		X		
3	1.33	X				X		
4	1.00	X	X					
5	0.75		X		X			
5'	0.73	X					X	
6	0.68			X	X			
7	0.54				X		X	
8	0.45				X			X

(X = ENGAGED CLUTCH)

$$\frac{RING\ GEAR}{SUN\ GEAR}\ TOOTH\ RATIO:\ \frac{N_{R1}}{N_{S1}} = 3.01,\ \frac{N_{R2}}{N_{S2}} = 1.66,\ \frac{N_{R3}}{N_{S3}} = 2.25$$

RATIO SPREAD	8.18
RATIO STEPS	
REV/1	-0.61
1/2	1.78
2/3	1.56
3/4	1.33
4/5	1.33
5/6	1.11
6/7	1.24
7/8	1.20

FIG. 2a
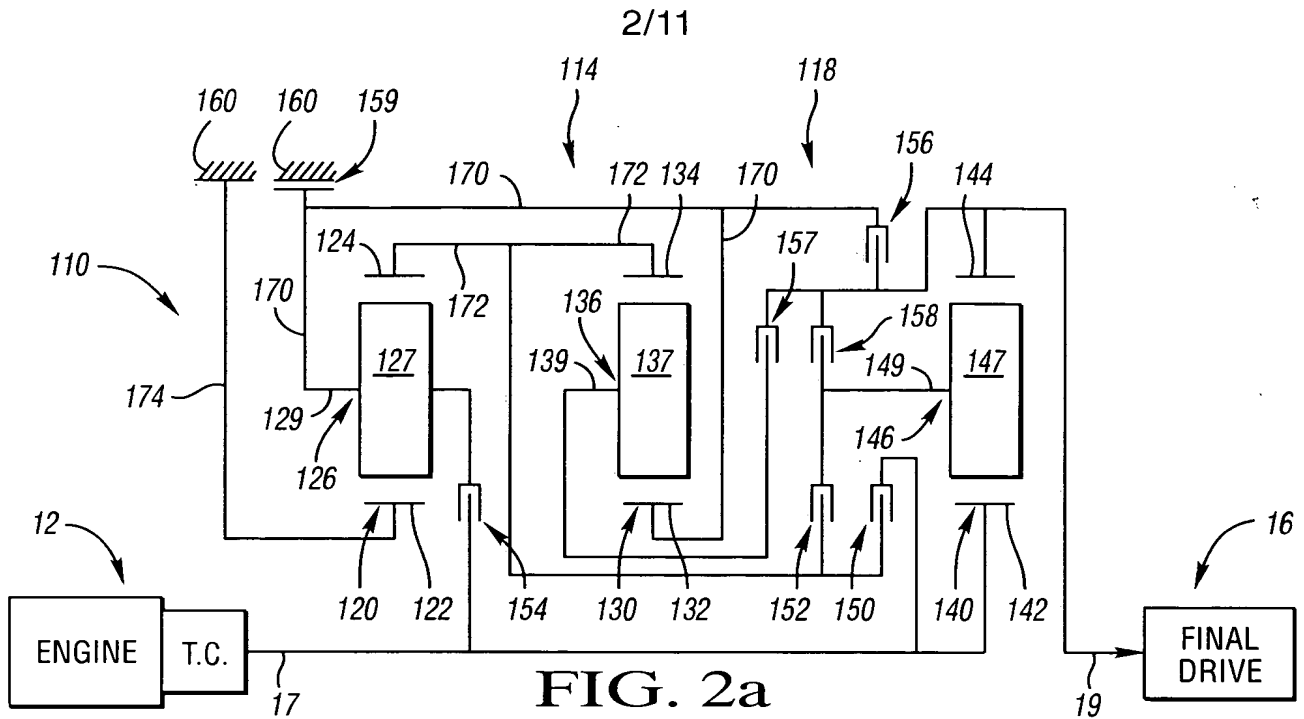
FIG. 2b

	RATIOS	150	152	154	156	157	158	159
REVERSE	-3.00		X					X
NEUTRAL	0.00		X					
1	3.67		X		X			
2	2.60				X		X	
2'	1.76		X			X		
3	1.67	X			X			
4	1.27	X					X	
5	1.19	X				X		
6	1.00					X	X	
7	0.71			X		X		
8	0.65			X			X	
9	0.53		X	X				

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.50, \frac{N_{R2}}{N_{S2}} = 1.50, \frac{N_{R3}}{N_{S3}} = 3.00$$

RATIO SPREAD	6.92
RATIO STEPS	
REV/1	-0.82
1/2	1.41
2/3	1.56
3/4	1.31
4/5	1.07
5/6	1.19
6/7	1.41
7/8	1.09
8/9	1.23

FIG. 3a

	RATIOS	250	252	254	256	257	258	259
REVERSE	-3.00	X						X
NEUTRAL	0.00							X
1	4.68					X		X
2	3.34			X		X		
3	1.92					X	X	
3'	1.85		X					X
4	1.30			X			X	
5	1.21		X				X	
6	1.00		X	X				
7	0.63		X		X			
8	0.56			X	X			
9	0.45				X			X

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.71, \frac{N_{R2}}{N_{S2}} = 1.74, \frac{N_{R3}}{N_{S3}} = 3.00$$

FIG. 3b

RATIO SPREAD	10.40
RATIO STEPS	
REV/1	-0.64
1/2	1.40
2/3	1.74
3/4	1.48
4/5	1.07
5/6	1.21
6/7	1.59
7/8	1.13
8/9	1.24
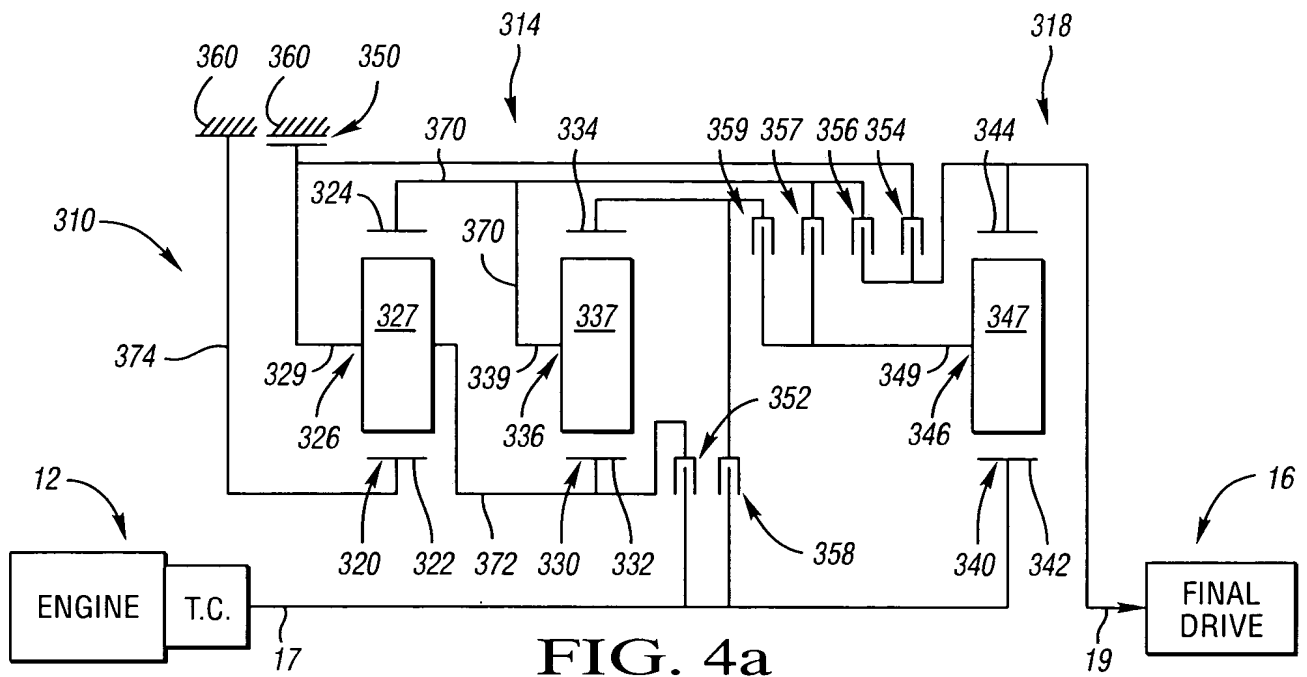
FIG. 4a

FIG. 4b

	RATIOS	350	352	354	356	357	358	359
REVERSE	-3.00	X						X
NEUTRAL	0.00							X
1	5.41			X				X
2	3.65			X		X		
3	2.10			X			X	
4	1.39					X	X	
5	1.26				X		X	
6	1.00				X	X		
7	0.60		X		X			
8	0.53		X			X		
9	0.40		X					X

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 1.51, \frac{N_{R3}}{N_{S3}} = 3.00$$

RATIO SPREAD	13.53
RATIO STEPS	
REV/1	-0.55
1/2	1.48
2/3	1.74
3/4	1.51
4/5	1.10
5/6	1.26
6/7	1.67
7/8	1.13
8/9	1.33

FIG. 5a

FIG. 5b

	RATIOS	450	452	454	456	457	458	459
REVERSE 2	-3.53			X	X			
REVERSE 1	-1.87	X		X				
NEUTRAL	0.00			X				
1	7.80			X			X	
2	5.32		X	X				
3	2.50		X					X
4	1.70		X			X		
5	1.39		X		X			
6	1.00	X	X					
7	0.65	X					X	
8	0.53	X				X		

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.87, \frac{N_{R2}}{N_{S2}} = 1.74, \frac{N_{R3}}{N_{S3}} = 1.50$$

RATIO SPREAD	14.68
RATIO STEPS	
REV2/1	-0.45
1/2	1.47
2/3	2.12
3/4	1.47
4/5	1.22
5/6	1.39
6/7	1.53
7/8	1.23
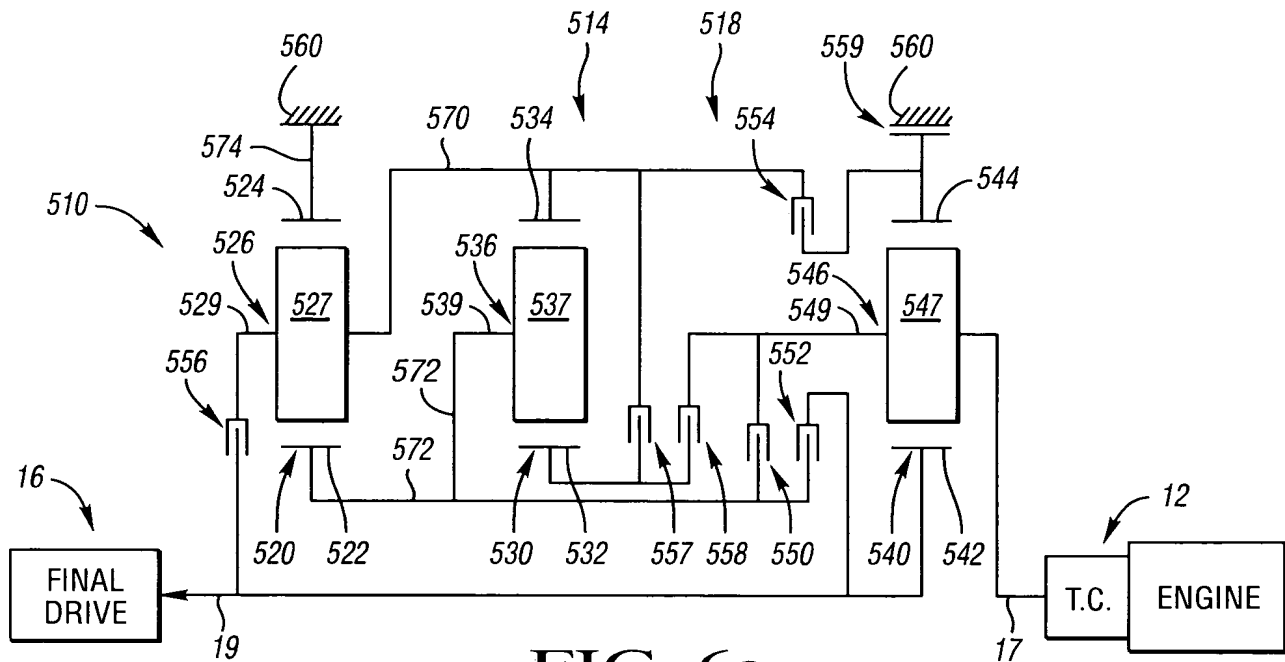
FIG. 6a

FIG. 6b

	RATIOS	550	552	554	556	557	558	559
REVERSE	-2.81	X				X		
NEUTRAL	0.00				X			
1	4.76				X		X	
2	3.26				X	X		
2'	2.50	X			X			
3'	1.90		X				X	
3	1.54		X			X		
4	1.00	X	X					
5	0.64		X	X				
6	0.53	X		X				
7	0.46			X			X	
8	0.40						X	X

(X = ENGAGED CLUTCH)

$\dfrac{\text{RING GEAR}}{\text{SUN GEAR}}$ TOOTH RATIO: $\dfrac{N_{R1}}{N_{S1}} = 1.50$, $\dfrac{N_{R2}}{N_{S2}} = 1.51$, $\dfrac{N_{R3}}{N_{S3}} = 1.50$

RATIO SPREAD	11.90
RATIO STEPS	
REV/1	-0.59
1/2	1.46
2/3	2.11
3/4	1.54
4/5	1.56
5/6	1.22
6/7	1.15
7/8	1.14
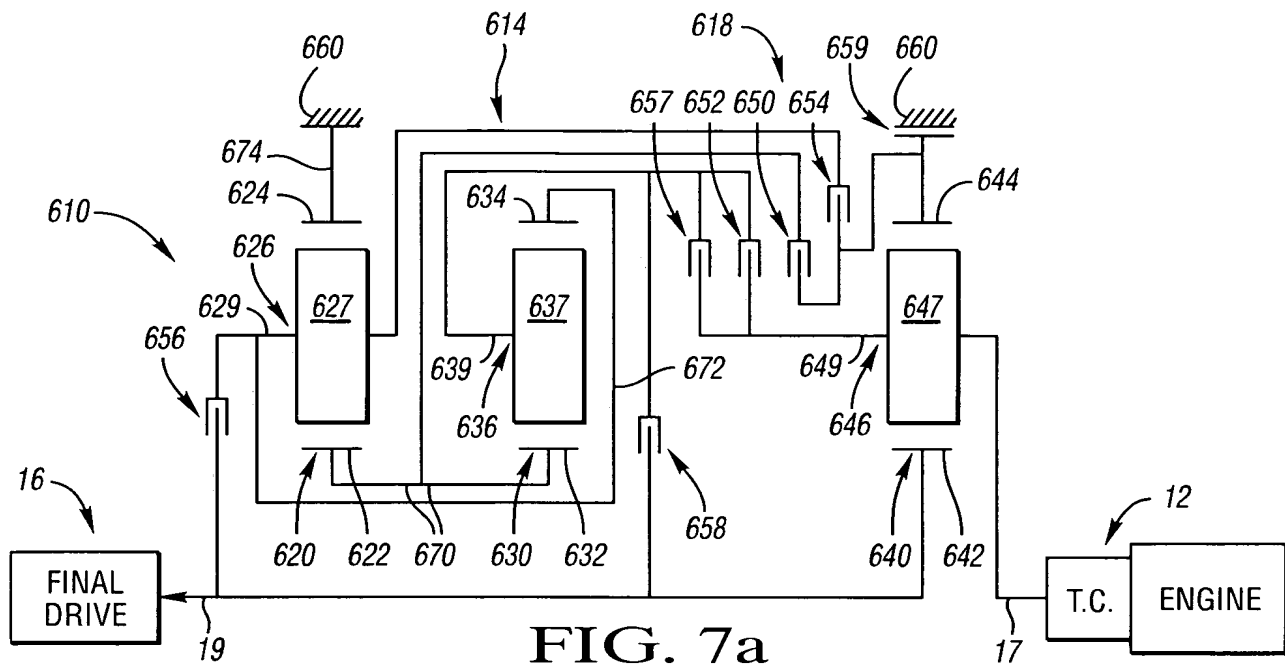
FIG. 7a

FIG. 7b

	RATIOS	650	652	654	656	657	658	659
REVERSE	-1.53	X				X		
NEUTRAL	0.00				X			
1	3.63		X		X			
2	2.58	X			X			
2'	2.10		X				X	
3'	1.73			X	X			
3	1.66	X					X	
4	1.00					X	X	
5	0.75			X			X	
6	0.61			X		X		
7	0.48		X	X				
8	0.40			X				X

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 2.62, \frac{N_{R2}}{N_{S2}} = 2.62, \frac{N_{R3}}{N_{S3}} = 1.50$$

RATIO SPREAD	9.06
RATIO STEPS	
REV/1	-0.42
1/2	1.41
2/3	1.49
3/4	1.72
4/5	1.34
5/6	1.22
6/7	1.28
7/8	1.20

FIG. 8a
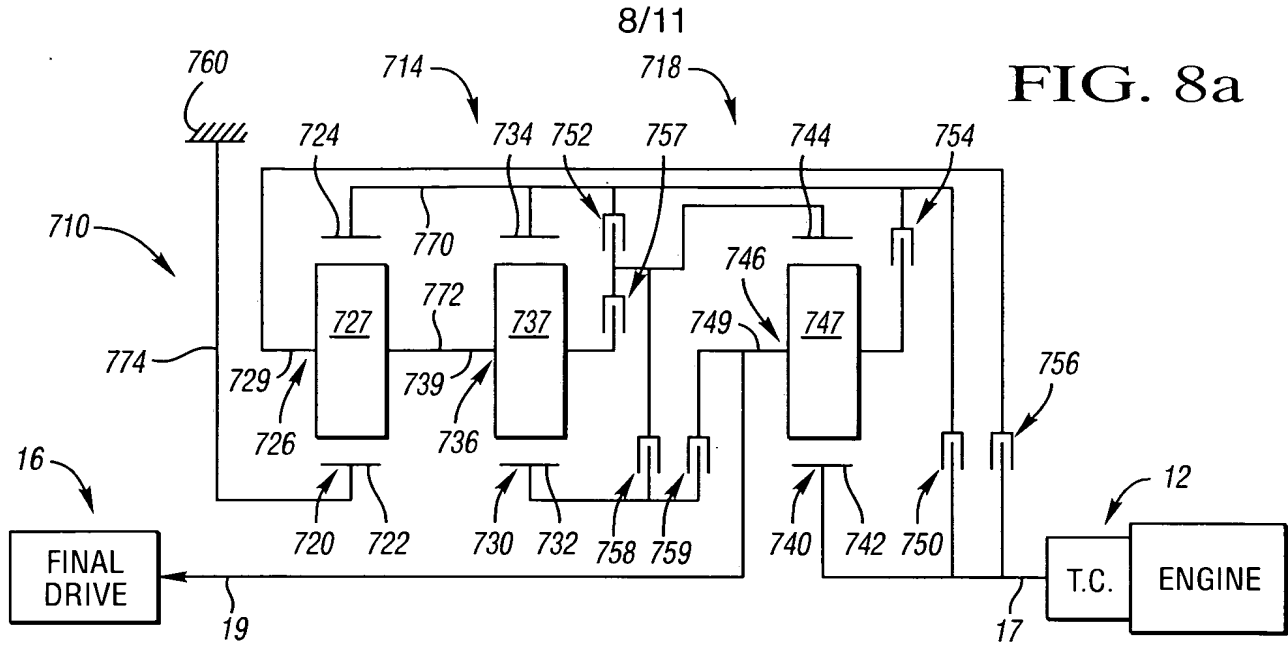
FIG. 8b

	RATIOS	750	752	754	756	757	758	759
REVERSE 2	-7.67	X						X
REVERSE 1	-5.11				X			X
NEUTRAL	0.00				X			
1'	27.00		X					X
1"	19.33					X		X
1	9.68				X	X		
2	6.57	X				X		
3	4.39			X		X		
4	4.00					X	X	
5	2.00			X			X	
6	1.33	X					X	
7	1.00	X	X					
8	0.73		X		X			
9	0.67			X		X		

(X = ENGAGED CLUTCH)

$\dfrac{\text{RING GEAR}}{\text{SUN GEAR}}$ TOOTH RATIO: $\dfrac{N_{R1}}{N_{S1}} = 2.00$, $\dfrac{N_{R2}}{N_{S2}} = 2.39$, $\dfrac{N_{R3}}{N_{S3}} = 3.00$

RATIO SPREAD	14.45
RATIO STEPS	
REV2/1	-0.79
1/2	1.47
2/3	1.50
3/4	1.10
4/5	2.00
5/6	1.50
6/7	1.33
7/8	1.37
8/9	1.09
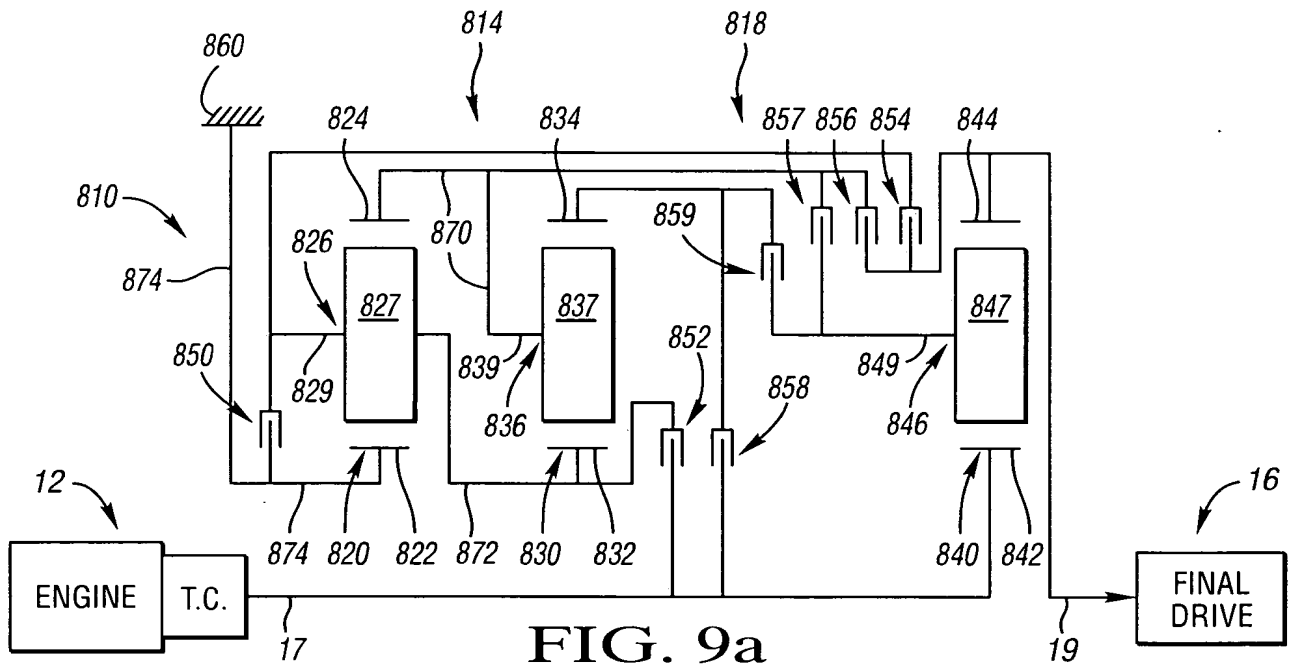
FIG. 9a

FIG. 9b

	RATIOS	850	852	854	856	857	858	859
REVERSE	-3.00	X				X		
NEUTRAL	0.00							X
1	5.41			X				X
2	3.65			X		X		
3	2.10			X			X	
3'	2.06				X			X
4	1.39					X	X	
5	1.26				X		X	
6	1.00				X	X		
7	0.60		X		X			
8	0.53		X			X		
9	0.40		X					X

(X = ENGAGED CLUTCH)

$$\frac{\text{RING GEAR}}{\text{SUN GEAR}} \text{ TOOTH RATIO: } \frac{N_{R1}}{N_{S1}} = 1.51, \frac{N_{R2}}{N_{S2}} = 1.51, \frac{N_{R3}}{N_{S3}} = 3.00$$

RATIO SPREAD	13.53
RATIO STEPS	
REV/1	-0.55
1/2	1.48
2/3	1.74
3/4	1.51
4/5	1.10
5/6	1.26
6/7	1.67
7/8	1.13
8/9	1.33

FIG. 10a

FINAL DRIVE

T.C. ENGINE

FIG. 10b

	RATIOS	950	952	954	956	957	958	959
REVERSE 2	-4.35				X	X		
REVERSE 1	-3.00	X			X			
NEUTRAL	0.00			X				
1'	11.03				X	X		
1''	8.50		X		X			
1	7.67	X		X				
2	5.05			X		X		
3	3.30			X				X
4	2.87		X	X				
5	1.58		X					X
6	1.25		X			X		
7	1.00	X	X					
8	0.77	X					X	
9	0.69	X						X

(X = ENGAGED CLUTCH)

$\dfrac{\text{RING GEAR}}{\text{SUN GEAR}}$ TOOTH RATIO: $\dfrac{N_{R1}}{N_{S1}} = 3.00$, $\dfrac{N_{R2}}{N_{S2}} = 2.97$, $\dfrac{N_{R3}}{N_{S3}} = 1.88$

RATIO SPREAD	11.12
RATIO STEPS	
REV2/1	-0.57
1/2	1.52
2/3	1.53
3/4	1.15
4/5	1.82
5/6	1.26
6/7	1.25
7/8	1.30
8/9	1.12
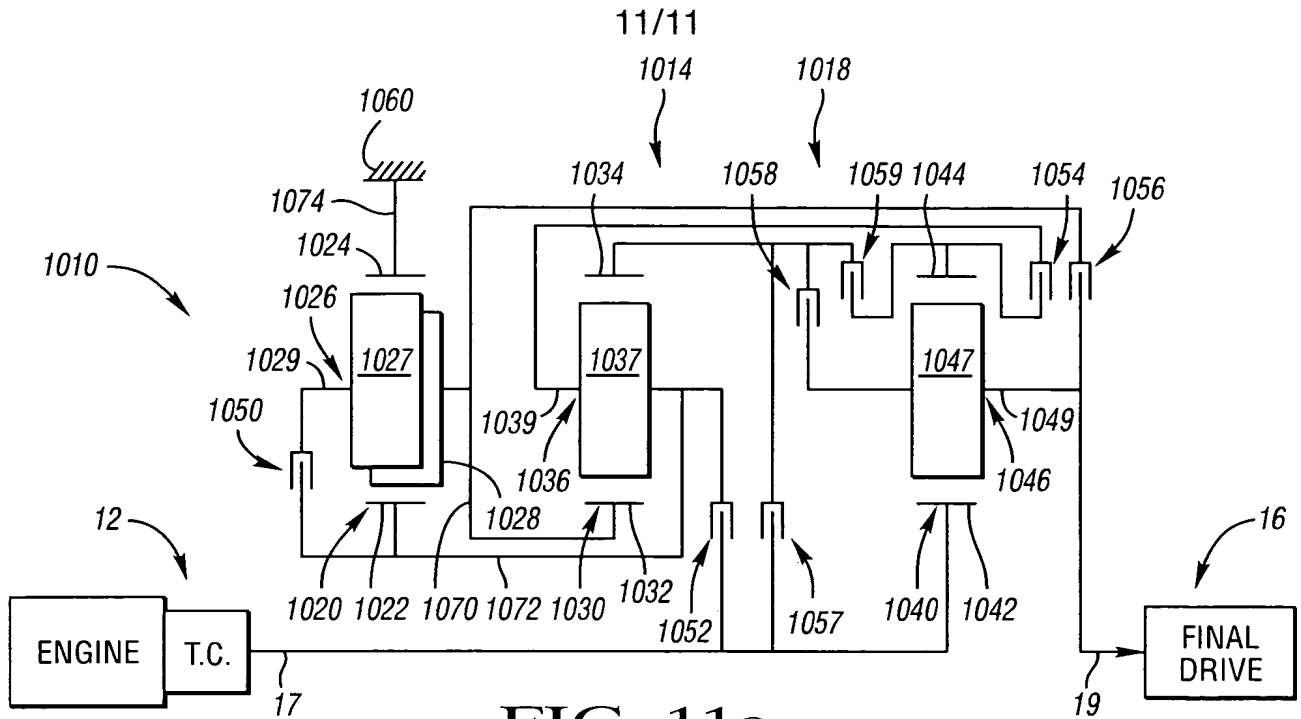
FIG. 11a

	RATIOS	1050	1052	1054	1056	1057	1058	1059
REVERSE 2	-3.53				X	X		
REVERSE 1	-1.87		X		X			
NEUTRAL	0.00				X			
1	7.80				X			X
2	5.32			X	X			
3	2.50	X		X				
4	1.70			X			X	
5	1.39			X		X		
6	1.00					X		X
7	0.65		X					X
8	0.53		X				X	

(X = ENGAGED CLUTCH)

$$\frac{RING\ GEAR}{SUN\ GEAR}\ TOOTH\ RATIO:\ \frac{N_{R1}}{N_{S1}}=2.87,\ \frac{N_{R2}}{N_{S2}}=1.74,\ \frac{N_{R3}}{N_{S3}}=1.50$$

RATIO SPREAD	14.72
RATIO STEPS	
REV2/1	-0.45
1/2	1.47
2/3	2.13
3/4	1.47
4/5	1.22
5/6	1.39
6/7	1.54
7/8	1.23

FIG. 11b